

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-5. (canceled).

6. (previously presented): An apparatus for manufacturing a test piece for use in biological analysis of a sample organism comprising a strip-like substrate bearing thereon numbers of known specific binding agents which are different from each other and are arranged in a line at predetermined intervals in the longitudinal direction of the strip-like substrate, the apparatus comprising:

a plurality of applicators arranged at predetermined interval in a first direction relative to a sheet-like substrate each of said plurality of applicators respectively operable to apply one of the plurality of known specific binding agents on the sheet-like substrate,

a conveyor which conveys the plurality of applicators or the sheet-like substrate relative to each other in a second direction which is substantially perpendicular to the first direction while the applicators apply the plurality of known specific binding agents, thereby applying the plurality of known specific binding agents in lines which extend in the second direction and are arranged at predetermined intervals in the first direction, and

a cutting means which cuts the sheet-like substrate bearing thereon the plurality of specific binding agents in the first direction into a plurality of strips.

7. (previously presented): An apparatus as defined in Claim 6 in which said specific binding agents are cDNA's.

8-13. (canceled).

14. (previously presented): A system for reading a test piece comprising a strip-like substrate bearing thereon numbers of known specific binding agents which are different from each other and are arranged in a line at predetermined intervals in the longitudinal direction of the strip-like substrate, the system comprising:

an exciting light source which projects, onto the test piece applied with substrate derived from a sample organism labeled with fluorescent dye, exciting light which excites the fluorescent dye,

a conveyor which conveys the strip-like substrate or the exciting light source to impart relative movement between the strip-like substrate and the exciting light source, said relative movement being along a single axis;

a photodetector which detects fluorescence emitted from the test piece upon excitation by the exciting light, and

an analysis means which relates the result of detection of the fluorescence with the positions in which the fluorescence is emitted and thereby determines the specific binding agent(s) on the test piece with which the substance derived from the sample organism is hybridized.

15. (previously presented): A system as defined in Claim 14 in which said specific binding agents are cDNAs and said substance derived from an organism is DNA.

16. (previously presented): A system as defined in Claim 14 further comprising a scanning system which causes the exciting light to linearly scan the strip-like test piece in the longitudinal direction thereof.

17. (previously presented): A system for reading a test piece comprising a strip-like substrate bearing thereon numbers of known specific binding agents which are different from each other and are arranged in a line at predetermined intervals in the longitudinal direction of the strip-like substrate, the system comprising

an exciting light source which projects, onto the test piece applied with substances derived from at least a pair of different sample organisms labelled with different fluorescent dyes, exciting light which excites the fluorescent dyes,

a photodetector which detects fluorescence emitted from the respective fluorescent dyes upon excitation by the exciting light, and

an analysis means which relates the result of detection of the fluorescence with the positions in which the fluorescence is emitted, thereby determining the specific binding agent(s) on the test piece with which the substance derived from each of the sample organisms is hybridized, and determines the difference between the substances derived from the respective sample organisms on the basis of the specific binding agents with which the substances derived from the respective sample organisms are hybridized with each other.

18. (previously presented): A system as defined in Claim 17 in which said specific binding agents are cDNAs and said substance derived from an organism is DNA.

19. (previously presented): A system as defined in Claim 17 further comprising a scanning system which causes the exciting light to linearly scan the strip-like test piece in the longitudinal direction thereof.

20. (previously presented): The system defined in claim 19, wherein the scanning system scans in only the longitudinal direction of the strip-like test piece.

21. (previously presented): The system of claim 6, wherein the binding agents are formed in continuous lines across the sheet-like substrate.

22. (new): An apparatus according to claim 6, wherein each of said plurality of applicators synchronously apply the plurality of known specific binding agents on the sheet-like substrate.

23. (new): An apparatus according to claim 6, wherein said conveyor comprises a conveyor belt, wherein said conveyor belt continuously conveys said strip-like substrate.

24. (new): An apparatus according to claim 6, wherein said cutting means comprises:

a guide rail; and

a cutting edge;

wherein said cutting edge moves along said guide rail.

25. (new): An apparatus according to claim 6, wherein said predetermined intervals
comprise a fixed number of intervals.